

Abstract

The debate about environmental protection in relation to armed conflict began around 1970 due to the meeting of two political movements: on the one hand, becoming aware of the environmental problem including concern for future generations and, on the other, a need to develop the law of armed conflict, filling some loopholes left by the Geneva Conventions of 1949 and reflecting experiences of conflicts which had happened since that time. There was (and is) a tension between the military interest of winning a war and the environmental interest of preserving the planet for future generations. Protocol I additional to the Geneva Convention adopted in 1977 constituted a victory for the military interest by defining the threshold of impermissible environmental damage in a way which is a far cry from satisfying the need of environmental preservation. But a lively discourse had started which has brought progress, but is far from yielding satisfactory final results. Major elements are the application of the rules concerning the protection of the civilian population and civilian objects to environmental protection, the principle of due regard for the environment, the recognized need to establish zones protected for the sake of environmental preservation, intensive activities of environmental fact-finding, the challenge of maintaining necessary environmental governance under the condition of armed conflict and environmental restoration as part of peacebuilding after the conflict.

Keywords

conflict, environmental damage, human security, peace and security operations, governance, law, diplomacy

1. Introduction

Preservation and restoration of the environment have become crucial ingredients of environmental peacebuilding. Thus, environmental considerations have to inform legal restraints on military activities. This article tries to show how this idea has, more or less successfully, inspired international legal discourses and international law-making over the last half century, and what further action might be needed.

Current conflicts, in particular the one in Ukraine, are accompanied by legal and political discourses which reflect, first of all, the shock provoked by the unspeakable human suffering, caused directly by the hostilities or occupation, indirectly by the destruction of critical infrastructure. Yet there also appears a deep sorrow for the fate of the environment and thus the impact of the conflicts on the living conditions of future generations.¹ This is a great challenge for the law, both national and international, and thus for the legal profession. This article tries to show how relevant actors have tried to

meet the challenge by developing applicable law. Much remains to be done in this respect.

2. The basic clash of cultures and early developments

The history of the international legal protection of the environment in relation to armed conflict started in the early 1970s.² At that time, two important currents met: on the one hand, there was the awareness of the fundamental environmental problem, which required law as one of the means of addressing it. On the other hand, there was a move to develop the law of armed conflict, which at that time became known as “international humanitarian law.” Its development was prompted by the experience gained after the end of World War II and was meant to close loopholes in that law which had become apparent.

The development of environmental policy and law was driven by two different phenomena, which are both typical for different aspects of the development of international law. There was, on the one hand, the scandalization of world public opinion because of the use of herbicides in the Vietnam War, which caused shocking environmental damage and, as became slowly known, affected the health of those exposed to them and of their descendants.³ There was, on the other hand, the birth of an environmental conscience, reflected in the publications of “Silent Spring” and the famous study of the Club of Rome “The Limits to Growth.”⁴ The environmental damages of the Vietnam War were documented, in particular in important and influential SIPRI publications.⁵ The development of the law of armed conflict was promoted both by the International Red Cross/Red Crescent Movement, in particular the International Committee of the Red Cross, and by the United Nations.⁶

When the two currents met in the early 1970s, this had to have an impact on ensuing negotiations concerning legal restraints of the use of military force. The two relevant fora were the Conference of the Committee on Disarmament (CCD) and the Diplomatic Conference on the Reaffirmation and Development of International Humanitarian Law (CDDH, 1974–1977). Yet this impact came as a shock and surprise for the epistemic communities which had so far controlled the relevant areas of international law, the law of armed conflict and arms control law.⁷ The military was flabbergasted by the thought of military activities being subject to environmental concerns and it resisted. The author of these lines witnessed it being a participant of the CDDH. The challenge for traditional military thinking was indeed fundamental. The Red Cross community was at that time not really prepared for it. Environmental law is based on the idea that all human activities have to pay respect to the rights of future generations, even the activity of waging war. That approach has been alien to the military profession. It is rather concerned with winning a war.⁸

The result of this first encounter between warfare and the environment in the process of formulating legal restraints on warfare were provisions in two relevant treaties, namely the Environment Modification Convention (ENMOD), prohibiting the use of environmental modification techniques as a means of warfare, adopted by the CCD in 1976,⁹ and in Articles 35 and 55 of Protocol I of 1977 additional to the Geneva Conventions (AP I), adopted by the CCDH.¹⁰ Both treaties define impermissible environmental harm by using the same three qualifications: that damage must be “widespread, longlasting/long-term and/ or severe.” The meaning of this expression is, however, different in the two cases. As to ENMOD, there are agreed interpretations formulated in the negotiation. As to AP I, there seemed to be a prevailing view in the negotiations of the CDDH, which happened shortly after the adoption of ENMOD, that the threshold should be higher than that of ENMOD. The only clear indication of that view is the fact that the three terms apply cumulatively (“and”), in contradistinction to ENMOD (“or”). It was indicated in the debates of the CDDH that “long-term” was to be understood as meaning decades, and that the “normal battlefield damage” was below the threshold.¹¹ Impermissible environmental damage apparently is to be understood as something which is so dreadful that it is hard to imagine in reality. I would not call this a compromise—it rather was a defeat for the cause of the environment.

3. Enhanced concerns for the preservation of the environment

But this was not the end. The ensuing development has been full of good news and bad news for the environment. The first good news: A political and legal discourse on the protection of the environment in relation to armed conflict had started, and it continues.¹²

The key players driving the development of international legal protection for the environment in relation to armed conflict were the ICRC and the International Union for the Conservation of Nature and Natural Resources (IUCN). A number of civil society organizations and some active States have also been involved in promoting environmental concerns.

In 1993, the ICRC proposed “Guidelines” on the subject, to which the UN General Assembly (UNGA), however, provided a third-class burial.¹³ New factual developments, however, increased the political interest in environmental protection in relation to armed conflict. These were the two first Gulf Wars which resulted in heavy oil pollution of the Persian Gulf.¹⁴ As a result of the second Gulf War in the early 1990s, the Security Council established the United Nations Claims Commission¹⁵, which, inter alia, awarded compensation for environmental damage caused by the war—which constituted an important clarification of the evaluation of environmental damage in international law.¹⁶ An important step was also the practice of the United Nations Environment Program (UNEP), started in 1991, to provide a stock-taking of the environmental consequences of certain conflicts, a practice rendered politically

possible by the fact that UNEP refrained from any legal evaluation, confining itself to the description of the situation, including the need for rehabilitation.¹⁷ This has provided a clearer picture of various types of environmental degradation caused by armed conflict.

The importance of environmental protection in relation to armed conflict was also stressed by the expert group established in 1999 by the Prosecutor of the International Criminal Tribunal for former Yugoslavia, tasked to assess alleged violations of international humanitarian law by the NATO bombing campaign concerning the Kosovo which could be subject to the jurisdiction of the Tribunal. The report¹⁸ starts with the question of environmental protection, states that the threshold of the three terms was not reached and then analyzes the environmental damage considering the principle of proportionality.

But, this is the bad news part of the good news, no new treaty provision resulted from all the efforts for, and discussions of, environmental protection in relation to armed conflict— except for a rather unfortunate and ill-drafted provision of the Statute of the International Criminal Court.¹⁹ The protection of the environment in relation to armed conflict has, however, been the object of so-called soft law instruments, for instance the World Charter for Nature adopted by the General Assembly in 1982²⁰ and the 1992 Rio Declaration,²¹ both without reference to the three terms mentioned above.

There is yet another piece of good news in the recent elaboration of the legal framework: the three terms which, as I have explained, stand for the victory of military interest over environmental protection have never played a decisive role in practical discussions concerning specific cases. In terms of actual practice, they have remained without effect. As will be shown below, the music has played elsewhere. Nevertheless, the three terms are resilient, as they are the written law. But their practical importance has been reduced by other considerations.

4. Recent developments

As to newer developments, there is, first, a discussion on substantive law. Its key is that elements of the environment are civilian objects. This means that the principles of distinction, proportionality and precautions apply. Elements of the environment may not be the target of attack unless they are, because of a specific military use or significance, military objectives. Even if they are, the environmental damage may not be disproportionate in relation to the direct military advantage anticipated. This is the approach of the International Tribunal for the former Yugoslavia (ICTY) expert report just mentioned.²² The essential point is the relative weight given to environmental concerns in balancing decisions involved in the proportionality assessment.²³ This is also reflected in the new formula of “due regard” for the environment. It was introduced

by the San Remo Manual on Naval Warfare 1994,²⁴ the product of a private expert group, and now generally accepted:

“Methods and means of warfare should be employed with due regard for the natural environment .”

This principle of due regard is then included in the following documents formulating relevant international law, namely the ICRC Customary International Humanitarian Law Study²⁵ and the 2020 ICRC Guidelines.²⁶ Furthermore, other norms concerning the conduct of hostilities imply elements of environmental protection: the prohibition of pillage, the protection of works and installations containing dangerous forces, the protection of objects necessary for the survival of the civilian population.

5. Documents reflecting the current status of the law

The preceding review of the rules protecting the environment in armed conflict is the essential foundation of new developments and initiatives in this field. The first one to be mentioned is the customary international humanitarian law study published by the ICRC in 2005.²⁷ It has clarified that the protection of the environment as civilian object and the ensuing application of the proportionality principle as well as the requirement of precautionary measures indeed constitute customary law, applicable in both international and non-international conflict. A provision containing the three words follows afterwards and is thus reduced to an acceptable limited scope. They only apply if certain elements of the environment could otherwise be lawfully attacked as military objectives.²⁸

One element in the series of rules formulated by the ICRC is particularly interesting: as the assessment of proportionality and the requirement of taking precautions implies a prognosis, that is, uncertainty. There is a rule on how to deal with that uncertainty: “Lack of scientific certainty as to the effect on the environment of certain military operations does not absolve a party to the conflict from taking such precautions.”²⁹ This means, in other words, the application of the peacetime precautionary principle in relation to armed conflict.³⁰ Be it noted that this particular formula is not supported by quotes of practice, but rather by the general assumption, with which this author wholeheartedly agrees, that general rules of environmental law also apply in armed conflict.

In 2010, the next important initiative by the ICRC was a proposal of four subject areas where, in the view of the ICRC, international humanitarian law needed further development. One of these areas was the protection of the environment. The proposal included the establishment of environmentally valuable protected zones,³¹ an idea already propagated in 1991 by the International Council on Environmental Law (yet another

relevant NGO).³² That ICRC proposal was, however, not accepted for further consultations by the majority of States. It must be added as a poor consolation that the two problems where consultations started (compliance and detainees) ended in a complete failure, due to the open resistance of a small group of States, in particular Russia and India, but also due to the lack of support from a bigger number of States.³³ This failure is significant as it sheds light on conditions which also hamper the development of international law regarding the protection of the environment in relation to armed conflicts. Our time is not a good time for the development of international law by treaty-making!³⁴

This is one of the reasons why the International Law Commission,³⁵ which in 2013 took up the issue of “Protection of the environment in relation to armed conflict,” has not proposed a draft treaty, but the formulation of “principles.” The proposal by Ambassador Jacobsson, which was accepted by the Commission after some debate, was both innovative and necessary as it drew the attention of the Commission to the obvious fact that the effect of war on the environment cannot be ascertained and legally regulated focusing only on the period of actual hostilities. Relevant circumstances occur before and after the conflict, for instance the siting or locating of relevant objects or the establishment of protected zones before a conflict occurs,³⁶ and environmental restoration as an element of peacebuilding after the conflict. For well-known reasons, tragically confirmed during the last few months, the protection of the environment in situations of belligerent occupation³⁷ also needs to be addressed.

The work begun by Ambassador Jacobsson was successfully continued and brought to a certain conclusion by Ambassador Lehto, and after being sent out to States for comment, it was adopted by the Commission³⁸ and submitted to the UN General Assembly.

The International Law Commission confirms and strengthens the developments just described: the protection of the environment as part of the protection of the civilian population and of civilian objects (applicable in both international and non-international conflicts),³⁹ the need to establish protected zones⁴⁰ and environmental restoration as part of the *ius post bellum*. This is an important element of peacebuilding, with ensuing duties of exchange of information, assistance, and cooperation.⁴¹ The three terms of Articles 35(3) and 55 AP I are included, but the Commentary to the ILC Principles states that they do not exclude the application of other norms of international law, in particular international environmental law and human rights, whose relevance may lead to stricter protections.⁴² Furthermore, the interpretation of these terms may not be based on the knowledge of environmental hazards as it existed in the 1970s when AP I was negotiated, but on today’s insights concerning environmental protection.⁴³

The observations by States were moderately friendly. Despite the fact that the Commission was very careful to distinguish between “shall” and “should,” doubts were expressed as to the *lex lata* or *lex ferenda* character of the principles.⁴⁴ The equal treatment of international and non-international conflicts has also not met unreserved approval.⁴⁵ The unwillingness of States to be “caught” by legal obligations, which can be observed in many fields of international law, can also be observed in this connection, not surprisingly so. The lukewarm reception the General Assembly gave to the work of the ILC⁴⁶ confirms these doubts and reservations. The Assembly published the ILC Principles in the Annex to the corresponding resolution, but did not “adopt,” “approve,” or “welcome” the Principles. It only “takes note” of them and “brings them to the attention” of whomever they might concern. This formula as such is not unusual. Yet the reluctance of a majority of General Assembly members is shown by the fact that the Assembly does not envisage any further action. The Assembly takes a differentiated stance on the legal quality of the principles by enumerating the obvious three options without clarifying which of the Principles falls under which category. They may constitute customary or treaty-based law or progressive development thereof. The Assembly, thus, reflects the current reluctance of many members of the international community by highlighting that some of the Principles can promote this development “through examples of effective voluntary measures to enhance the protection of the environment in relation to armed conflicts.”⁴⁷

The work of the ILC is supplemented and strengthened by new “Guidelines” of the ICRC, which constitute a thorough comprehensive and complete stocktaking of the norms protecting the environment in armed conflict.⁴⁸

6. Assessment of the current status of the law and the way forward

Thus, where do we stand and where can we go concerning the legal protection of the environment in relation to armed conflict?

The work of the ICRC and of the ILC have solidified the legal basis for that protection. But a number of problems remain. To put the question in general terms: How can the natural environment be effectively protected in situations of armed conflict, taking into account that this is difficult even in situations of peace?

To answer this question, it is useful to recall that maintaining a healthy environment in a territory and also at sea requires State controls and orderly administrative management, in other words environmental governance. Yet the situation of war makes such governance difficult, if not impossible. To what extent is a State obliged to maintain such governance even in the war-related chaos?⁴⁹ This question has first to be answered by the internal law of the State in question: to what extent does the national law require that the “normal” rules on environmental governance apply in times of armed conflict, too? As to international law, the answer lies, first, in the rule

that as a matter of principle, treaties protecting the environment are not suspended in the situation of armed conflict.⁵⁰ They remain, in other words, applicable in armed conflict.⁵¹ But this is easier said than done.⁵²

A second answer lies in the law of neutrality: the relationship between a party to an armed conflict and neutral states is governed by the law applicable in times of peace.⁵³ Thus, in relation to the neutral State a belligerent must respect the rules of environmental protection, how difficult that might ever be.⁵⁴

A third answer derives from the law of belligerent occupation.⁵⁵ It is the general duty of the Occupying Power to ensure peace, order, and good governance in an occupied territory, as a matter of principle by applying the pre-existing law of the State whose territory has fallen into the hands of the occupying power.⁵⁶ In a prolonged occupation, where the situation has become relatively calm, this is a realistic requirement. If the battle noise is still close, this is difficult. The question of environmental governance in times of armed conflict remains to be further addressed.

Furthermore, the protection of the environment based on the rules protecting the civilian population requires, as already explained, difficult balancing decisions, both in respect of the definition of military objectives and in relation to the proportionality principle. The uncertainties this involves have been mentioned. While military commanders are normally trained and accustomed to balancing civilian losses and the military advantage to be gained from an attack, this is not so regarding environmental damage. To what extent this type of balancing is already part of military training and exercises, is not really known to this author. To say the least, it requires an expertise which the typical military commander does not possess. The necessary expertise, thus, must somehow be brought to the commander. But does this expertise already exist anywhere? The “normal” environmental law administrator will very often not be sufficiently knowledgeable in the field of the specific environmental damages deriving from methods and means of combat. Where there are elaborate procedures for targeting decision, as has been the case in a number of aerial warfare campaigns,⁵⁷ that expertise will be available. Creating relevant knowledge is also possible by bringing together experts from both fields to analyze typical scenarios of environmental damage caused by armed conflicts in order to give some guidance for the balancing processes on the battlefield. This can also be part of lessons learned exercises. The “Guidelines” developed by Chatham House on the damage side of the proportionality equation are an example of such an approach and point in the right direction.⁵⁸ Appropriate balancing requires systematically raising the awareness of potential military decision-makers. To give environmental concerns precedence over direct, short term military interest, for the sake of future generations, but also in the interest of future peacebuilding, is noble behavior. But it does not come automatically.

A related issue is the establishment of zones protected against the effect of hostilities because of their environmental value, an idea which has been discussed since the early 1990s,⁵⁹ and it is still very much alive. It is a valuable idea, but somewhat problematic to implement. A model could (and would) be Art. 60 of AP I on demilitarized zones. The problem is not so much the content of the protection, but rather the determination of concrete protected zones. The parties to a conflict can of course agree on such zones. This is the solution proposed by the ILC,⁶⁰ but this is somewhat difficult. It is hard to imagine parties to an ongoing conflict agreeing on the exact borders of such a protected zone. IUCN had proposed a determination by the Security Council.⁶¹ This would have the advantage that the determination could be binding even without the consent of the parties to the conflict. But the disadvantage would be to introduce the risk of being blocked, as the Security Council all too often is, and could thus not take a proactive measure under international humanitarian and environmental law. Determination by the parties could and should refer to a pre-established protected status. There are a number of sites and areas protected pursuant to specific international treaties. The best known one is the World Heritage Convention.⁶² In contradistinction, the spaces to be protected under the Kunming-Montreal Global Biodiversity Framework, adopted by the 15th Conference of the Parties to the Biodiversity Convention,⁶³ namely 30% of the terrestrial and sea areas of the World, are much too vast to be acceptable for States as zones protected against military operations in times of war.

7. Perspectives of legal development

Protection of the environment in relation to armed conflicts remains on the agenda of international politics. This is shown by accusations regarding violations allegedly committed during a conflict. A lot of fact-finding is taking place in that regard. Reconstruction after the war in Ukraine is being discussed with a view to creating a greener economy.⁶⁴ Environmental peacebuilding as part of the *ius post bellum* seems to become a trend.⁶⁵ Yet more needs to be done in terms of development and clarification of the law, be it through expert work or through additional law-making. Examples of relevant subjects are the establishment of protected areas, the concrete meaning of the proportionality principle in respect of environmental damage and the maintenance of necessary environmental governance during armed conflict and its restoration in the post-conflict phase.

A final and critical problem remains: the disposition of relevant decision-makers to accept international law, whose content has been described, as a yardstick for their decisions. International law restraining military operations and thus the freedom of States to act as it pleases them, is necessary for the sake of common good, but it is in crisis. The blatant disregard of international legal restraints which we witness in the current conflict in Ukraine is in this regard only the tip of the iceberg. Protecting the environment against damages caused by armed conflict remains an uphill fight.

NOTES

1. For a current summary of the environmental impacts of armed conflict see Matthew et al. (2009), p. 15.
2. For a detailed description of the history see Bothe (2007).
3. Westing (1984), 111 et seq., 133 et seq.
4. Carson (1962) and Meadows (1972).
5. SIPRI (1976) and SIPRI (1980).
6. Bothe and Partsch in Bothe et al. (2013), 2 et seq.
7. See inter alia Alexander (2015).
8. Falk (2000), p. 139.
9. Convention on the Prohibition of Military or Any Hostile Use of Environmental Modification Techniques, December 10, 1976, 1108 UNTS 151.
10. Protocol additional to the Geneva Conventions of August 12, 1949, and relating to the Protection of victims of International Armed Conflicts (Protocol I), June 8, 1977, 1125 UNTS 3.
11. Solf in Bothe et al. (2013), 387 et seq.; Thomas (2014), 113 et seq.
12. See Bothe (2007) for the development immediately following the CDDH until 2005.
13. Bothe (2007), p. 234.
14. Abdulraheem (2000); for a brief account, see also Gulf War oil disaster. A brief history, available at www.counterspill.org/article/gulf-war-oil-disaster-brief-history, accessed April 2, 2023.
15. UNSC Resolutions 687, April 8, 1991, Part E, paras 16 et seq., 692, May 20, 1991.
16. Bothe (2007), p. 234.
17. Jensen (2008).
18. ICTY (2000).
19. Art. 8 (2)(b)(iv) ICC Statute: for a critique see Bothe (2007), p. 235 and Bothe (2002), p. 400.
20. UN Doc. A/RES/37/7, October 10, 1982, Principles 5 and 20.
21. Rio Declaration on Environment and Development, UN Doc. A/CONF.151/26/vol. I, August 12, 1992, Principle 24.

22. ICTY (2000).
23. Bothe et al. (2010), 576 et seq.; Fleck (2014), 47 et seq.
24. San Remo Manual on International Law Applicable to Armed Conflict at Sea, June 12, 1994, Art. 44.
25. ICRC et al. (2005), Vol. I, p. 147, Rule 44.
26. ICRC (2020), p. 27, Rule 1.
27. ICRC et al. (2005).
28. Rule 43, Vol. 1, p. 143.
29. Vol. I, p. 150.
30. Bothe (2020).
31. Kellenberger (2010), 802 et seq.
32. Bothe (2007), p. 237.
33. This failure is scarcely reported, apparently because both the ICRC and the Swiss government are reluctant to name and shame the actual culprits. See the laconic statement by the ICRC titled “Strengthening compliance with international humanitarian law: the work of the ICRC and the Swiss government (2015–2019): “. the intergovernmental process was not able to reach consensus,” available at www.icrc.org/en/document/strengthening-compliance-international-humanitarian-law-work-icrc-and-swiss-government-2015, accessed April 2, 2023.
34. For a comprehensive account of the development see Droege and Giorgou (2022).
35. ILC (2022b); there is now a wealth of doctrinal discussion of this work of the ILC, see for example Smith (2020), Wormald (2021), Dienelt and Oeter (2021).
36. Principle 4; the duty to take precautionary measures as provided by Art. 58 AP I cannot really be fulfilled without appropriate measures being taken beforehand in peacetime.
37. ILC Principles 19–21.
38. Draft principles on protection of the environment in relation to armed conflicts, in ILC (2022b), para. 58, text with commentary para. 59 (quoted as ILC Principles).
39. ILC (2022a).
40. ILC Principle 18.
41. ILC Principles Part Five, principles 22–27.

42. ILC (2022b), Commentary to Principle 3, p. 101 ; Commentary to Part III, p. 136.
43. ILC (2022b), 142 et seq.
44. ILC (2022a), para. 21.
45. ILC (2022a), para. 20.
46. UN General Assembly resolution A/RES/77/104, December 7, 2022.
47. Italics by the author.
48. ICRC (2020).
49. See United Nations Environment Programme (2022), 12 et seq.: Matthew et al. (2009), p. 15.
50. ILC Draft Articles on the effect of armed conflict on treaties, Annex to UN doc. A/RES/66/99, 27 February 27, 2012, Art. 7 and Annex thereto, lit. g.
51. Bothe et al. (2010), 581 et seq.
52. Bothe et al. (2010), 580 et seq.
53. Bothe (2021), p. 602; Bothe et al. (2010), p. 581.
54. Bothe et al. (2010), p. 581; Bothe (2021), p. 602.
55. ILC Principles Part Four, principles 19–21; Hulme (2020).
56. Bothe (2015), 1461 et seq., 1466 et seq.
57. Montgomery (2002).
58. Gillard (2018), 292 et seq.
59. Bothe (2007), p. 237.
60. Principles 4 and 18.
61. Bothe (2007), p. 237.
62. Bothe et al. (2010), p. 582.
63. Draft presented by the President of the Conference, Doc. CBD/COP/15/L.25. 64. Katser-Buchkovska (2022).
65. Bruch (2017), p. 36; Hulme (2017); Stefanik (2017), 115 et seq.

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